## WHAT IS CLAIMED IS:

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## 1. compounds of Formula I

$$Ar^{1}_{-}(X)_{\overline{m}} \xrightarrow{(C)_{\overline{q}}} (Y)_{\overline{n}} \xrightarrow{(C)_{\overline{r}}} (Z)_{p} \xrightarrow{|I|} (O)_{t} - R^{5}$$

$$I \qquad \qquad Ar^{2}$$

and the pharmaceutically acceptable salts and esters thereof, wherein

Ar1 and Ar2 are independently selected from the group consisting of aryl and R4 -substituted aryl;

X, Y and Z are independently selected from the group consisting of -CH2-, -CH(C1-6alkyl)- and -C(C1-6alkyl)2-;

R is selected from the group consisting of -OR6, -O(CO)R<sup>6</sup>, -O(CO)OR<sup>9</sup>,

-O(CO)NR<sup>6</sup>R<sup>7</sup>, a sugar residue, a disugar residue, a trisugar residue and a tetrasugar residue;

R1 is selected from the group consisting of hydrogen, C1-6alkyl and aryl or R and R1 together are oxo;

R<sup>2</sup> is selected from the group consisting of -OR<sup>6</sup>, -O(CO)R<sup>6</sup>, -O(CO)OR<sup>9</sup> and -O(CO)NR<sup>6</sup>R<sup>7</sup>;

R3 is selected from the group consisting of hydrogen, -C1-6alkyl and aryl or R2 and R3 together are oxo;

q, r and t are each independently selected from 0 and 1; m, n and p are each independently selected from 0, 1, 2, 3 and 4; provided that at least one of q and r is 1, and the sum of m, n, p, q are r is 1, 2, 3, 4, 5 or

6; and provided that when p is 0 and r is 1, the sum of m, q and n is 1, 2, 3, 4, or 5;

 $R^4$  is 1-5 substituents independently selected at each occurrence from the group consisting of:  $-OR^6$ ,  $-O(CO)R^6$ ,  $-O(CO)OR^9$ ,  $-O-C_{1-5}$ alkyl $-OR^6$ ,  $-O(CO)NR^6R^7$ ,  $-NR^6R^7$ ,  $-NR^6(CO)R^7$ ,

 $NR^6(CO)OR^9$ ,  $-NR^6(CO)NR^7R^8$ ,  $-NR^6SO_2R^9$ ,  $-COOR^6$ ,  $-CONR^6R^7$ ,  $-COR^6$ ,  $-SO_2NR^6R^7$ ,  $-COR^6$ ,  $-SO_2NR^6$ ,  $-SO_2NR$ 

 $S(O)_{0\text{--}2}R^9,\, \text{-O-C}_{1\text{--}10}\text{alkyl-COOR}^6,\, \text{-O-C}_{1\text{--}10}\text{alkyl-CONR}^6R^7$  and fluoro;

R6, R7 and R8 are independently selected at each occurrence from the group consisting of hydrogen, C1 – 6alkyl, aryl and aryl-substituted C1-6alkyl;

25 R<sup>9</sup> is independently selected from the group consisting of C<sub>1-6</sub>alkyl, aryl and aryl-substituted C<sub>1-6</sub>alkyl; R<sup>5</sup> is selected from

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(a) -R10-R11, wherein R10 is selected from the group consisting of -S-, -S(O)-, -SO<sub>2</sub>- and -C<sub>1-6</sub> n-alkyl- substituted with one to three substituents selected from the group consisting of -C<sub>1-6</sub> 6alkyl, -O(C<sub>1-6</sub>alkyl), -CF<sub>3</sub>,

-OCF3, -NR6R7 and -F;

- (b) -R12-R13, wherein R12 is selected from (i) a bond and (ii) a member selected from the group consisting of -S-, -S(O)-, -SO<sub>2</sub>-, -C<sub>1</sub>-6 n-alkyl-, and -C<sub>1</sub>-6 n-alkyl-N(R<sup>6</sup>)-, wherein the alkyl group is unsubstituted or substituted with one to three substituents selected from the group consisting of -OH, oxo, -C<sub>1</sub>-6alkyl, -O(C<sub>1</sub>-6alkyl), -CF<sub>3</sub>, -OCF<sub>3</sub>, -NR<sup>6</sup>R<sup>7</sup> and -F, and provided that when R<sup>12</sup> is a bond then t is 1;
- 10 R11 is selected from the group consisting of a sugar residue, disugar residue, trisugar residue and tetrasugar residue;
  - R13 is selected from the group consisting of:
    - (a) a thiosugar residue selected from the group consisting of:

(i) 
$$R^{14}$$
  $R^{14}$   $R^{14}$ 

wherein R<sup>14</sup> is independently selected at each occurrence from (i) a linking bond and (ii) a member of the group consisting of –F, -H, -C<sub>1</sub>-6alkyl, -OC<sub>1</sub>-6alkyl, -OCF<sub>3</sub>, -OH, -O-PG, -OR<sup>11</sup> and -OR<sup>13</sup>, and provided that: (A) one and only one occurrence of R<sup>14</sup> is a linking bond, (B) an R<sup>14</sup> adjacent to a carbonyl is not –F, and (C) no more than one occurrence of R<sup>14</sup> is selected from -OR<sup>11</sup> and -OR<sup>13</sup>;

(b) a fluorosugar residue selected from the group consisting of:

(i) 
$$R^{14}$$
  $R^{14}$   $R^{14}$ 

wherein R<sup>14</sup> is independently selected at each occurrence from (i) a linking bond and (ii) a member of the group consisting of -F, -H, -C<sub>1</sub>-6alkyl, -OC<sub>1</sub>-6alkyl, -OCF<sub>3</sub>, -OH, -O-PG, -O-R<sup>11</sup> and -OR<sup>13</sup>, and provided that: (A) one and only one occurrence of R<sup>14</sup> is a linking bond, (B)

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at least one occurrence of  $R^{14}$  is -F, (C) an  $R^{14}$  adjacent to a carbonyl is not -F, and (D) no more than one occurrence of  $R^{14}$  is selected from -OR<sup>11</sup> and -OR<sup>13</sup>;

(c) 
$$R^{15}$$
 (d)  $R^{15}$  (e)  $R^{15}$  (f)  $R^{15}$   $R^{$ 

- wherein R15 is independently selected at each occurrence from (i) a linking bond and (ii) a member of the group consisting of –H, -C<sub>1-6</sub>alkyl, -OC<sub>1-6</sub>alkyl, -OCF<sub>3</sub>, –OH, -O-PG, -OR<sup>11</sup>, -OR<sup>13</sup>, -SR<sup>11</sup>, -SR<sup>13</sup>, -NR<sup>6</sup>R<sup>11</sup> and -NR<sup>6</sup>R<sup>13</sup>, and provided that: (A) one and only one occurrence of R<sup>15</sup> is a linking bond and (B) no more than one occurrence of R<sup>15</sup> is selected from -OR<sup>11</sup>, -OR<sup>13</sup>, -SR<sup>11</sup>, -SR<sup>13</sup>, -NR<sup>6</sup>R<sup>11</sup> and -NR<sup>6</sup>R<sup>13</sup>;
- R16 is independently selected at each occurrence from the group consisting of -H and -F;
  PG is a hydroxyl protecting group;
  - and provided that R<sup>5</sup> is comprised of no more than four of any combination of sugar residues and members within the definition of R<sup>13</sup> linked together, and
- R17 is selected from the group consisting of -H, -OH, -C<sub>1</sub>-6alkyl, -OC<sub>1</sub>-6alkyl, -CF<sub>3</sub>, -CN, -NR<sup>6</sup>R<sup>7</sup> and halogen.

- 2. The compound of claim 1 wherein the  $-(O)_{t}$   $R^{5}$  moiety is attached to the phenyl ring para to the azetidinone, and the  $R^{5}$  group is comprised of either  $-R^{10}$  or  $-R^{12}$  and one or two of a combination of sugar residues and members within the definition of  $R^{13}$  linked together.
  - 3. The compound of claim 1 of Formula Ia:

$$R^{17}$$
 (O)t- $R_5$ 

and the pharmaceutically acceptable salts and esters thereof.

- 4. The compound of claim 3 wherein the R<sup>5</sup> group is comprised of one or two of a combination of sugar residues and members within the definition of R<sup>13</sup> linked together.
  - 5. The compound of claim 2 wherein t is one, R<sup>5</sup> is -R<sup>12</sup>-R<sup>13</sup>, and R<sup>12</sup> is a bond.
  - 6. The compound of claim 5 wherein R<sup>13</sup> is a thiosugar.
  - 7. The compound of claim 5 wherein  $R^{13}$  is

R<sup>15</sup> at position 1 is a linking bond.

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- 20 8. The compound of claim 7 selected from that wherein (a) all the remaining R<sup>15</sup> groups are -OH; and (b) R<sup>15</sup> at position 4 is -OR<sup>11</sup> and the remaining R<sup>15</sup> groups are -OH.
  - 9. The compound of claim 2 wherein t is zero and R5 is

 $_{R}10_{R}11$ 

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- 10. The compound of claim 9 wherein R11 is a sugar residue or a disugar residue.
- 11. The compound of claim 10 wherein R<sup>10</sup> is selected from -S- and -CF<sub>2</sub>-.
- 12. A method of reducing plasma cholesterol levels comprising administering a therapeutically effective amount of a compound of claim 1 to a patient in need of such treatment.
- 13. A method of treating hypercholesterolemia comprising administering a therapeutically effective amount of a compound of claim 1 to a patient in need of such treatment.
  - 14. A method of treating atherosclerosis comprising administering a therapeutically effective amount of a compound of claim 1 to a patient in need of such treatment.
  - 15. A method of reducing the risk for atheroscler osis comprising administering a prophylactically effective amount of a compound of claim 1 to a patient in need of such treatment.
- 16. A method of reducing the risk for having an atherosclerotic disease event comprising administering a prophylactically effective amount of a compound of claim 1 to a patient in at risk for such an event.
  - 17. A pharmaceutical composition comprising a compound of claim 1 and a pharmaceutically acceptable carrier.